CLAIMS

1. An integrated modem circuit comprising a processor-system (1) and hardware (2,3) for exchanging signals with another modem circuit, which integrated modem circuit comprises a digital phase locked loop filter (11), characterized in that said integrated modem circuit exchanges signals with another modem circuit at 1 Mb/s or more, with said processor-system (1) comprising filter software (11) for embodying said digital phase locked loop filter and with said hardware (2,3) comprising at least one module (22,32) for compensating for sample processing.

2. The integrated modem circuit according to claim 1, characterized in that said processor-system (1) comprises sample software (14,15) for processing samples in dependence of results originating from said phase locked loop filter (11).

3. The integrated modem circuit according to claim 2, characterized in that said hardware (2,3) comprises in a transmission path (2) a mapper (21), a rotor (22) and an inverse Fourier transformator (23) and in a receiving path (3) a Fourier transformator (33), a rotor (32) and a demapper (31), with at least one of said rotors (22,32) forming said module.

4. The integrated modem circuit according to claim 3, characterized in that said processor-system (1) comprises control software (12,13) for controlling at least one of said rotors (22,32) in dependence of results originating from said phase locked loop filter (11), with at least one of said transformators (23,33) being controlled by results originating from said sample software (14,15).

5. The integrated modem circuit according to claim 1, 2, 3 or 4, characterized in that said processor-system (1) performs an initialization step (101) for initiating software to be run via said processor-system (1)

and/or a reading step (102) for reading a software part at an address in a memory and/or a first detection step (104) for detecting a first instruction and/or a second detection step (105) for detecting a second instruction and/or a third detection step (106) for detecting an execution and/or an execution step (108,109) for performing at least one execution.

6. The integrated modem circuit according to claim 5, characterized in that said processor-system (1) performs in response to a positive detection (104) of said first instruction a first adaptation step (110) followed by at least a fourth detection step (111) and/or a fifth detection step (112), with said first adaptation step (110) and/or said fourth detection step (111) and/or said fifth detection step (112) being followed by a first incrementation step (114) for incrementing said address.

7. The integrated modem circuit according to claim 6, characterized in that said processor-system (1) performs in response to a positive detection (105) of said second instruction a sixth detection step (115) followed by at least a second adaptation step (116,117), with said second adaptation step (116,117) and/or said sixth detection step (115) being followed by a second incrementation step (118) for incrementing said address.

8. A processor-system (1) for use in an integrated modem circuit comprising said processor-system (1) and hardware (2,3) for exchanging signals with another modem circuit, which integrated modem circuit comprises a digital phase locked loop filter (11), characterized in that said integrated modem circuit exchanges signals with another modem circuit at 1 Mb/s or more, with said processor-system (1) comprising filter software (11) for embodying said digital phase locked loop filter and with said hardware (2,3) comprising at least one module (22,32) for compensating for sample processing.

9. A processor program product to be run via a processor-system (1) for use in an integrated modem circuit comprising said processor-system (1) and hardware (2,3) for exchanging signals with another modem circuit, which integrated modem circuit comprises a digital phase locked loop filter

5 (11), characterized in that said integrated modem circuit exchanges signals with another modem circuit at 1 Mb/s or more, with said processor program product comprising the function of filtering (11) for embodying said digital phase locked loop filter, and with said hardware (2,3) comprising at least one module (22,32) for compensating for sample processing.

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10. A method for use in an integrated modem circuit comprising a processor-system (1) and hardware (2,3) for exchanging signals with another modem circuit, which integrated modem circuit comprises a digital phase locked loop filter (11), characterized in that said integrated modem circuit

15 exchanges signals with another modem circuit at 1 Mb/s or more, with said method comprising the steps of filtering for embodying said digital phase locked loop filter by means of filtering software (11) and of compensating for sample processing by means of at least one module (22,32) of said hardware (2,3).

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